Gower

208,762 COMPLETE SPECIFICATION

208,762
1923

FIG. 1.

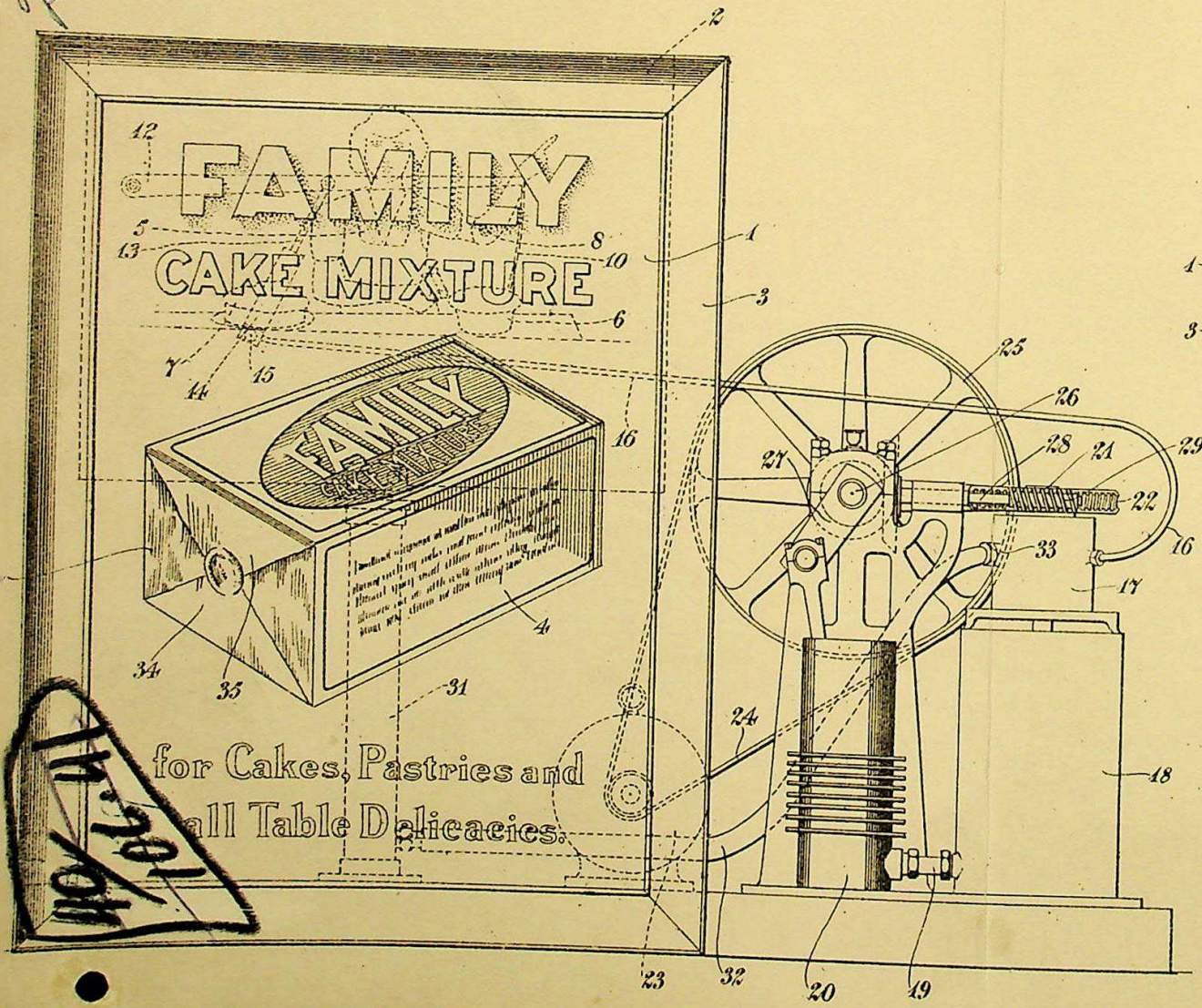

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FIG. 3.

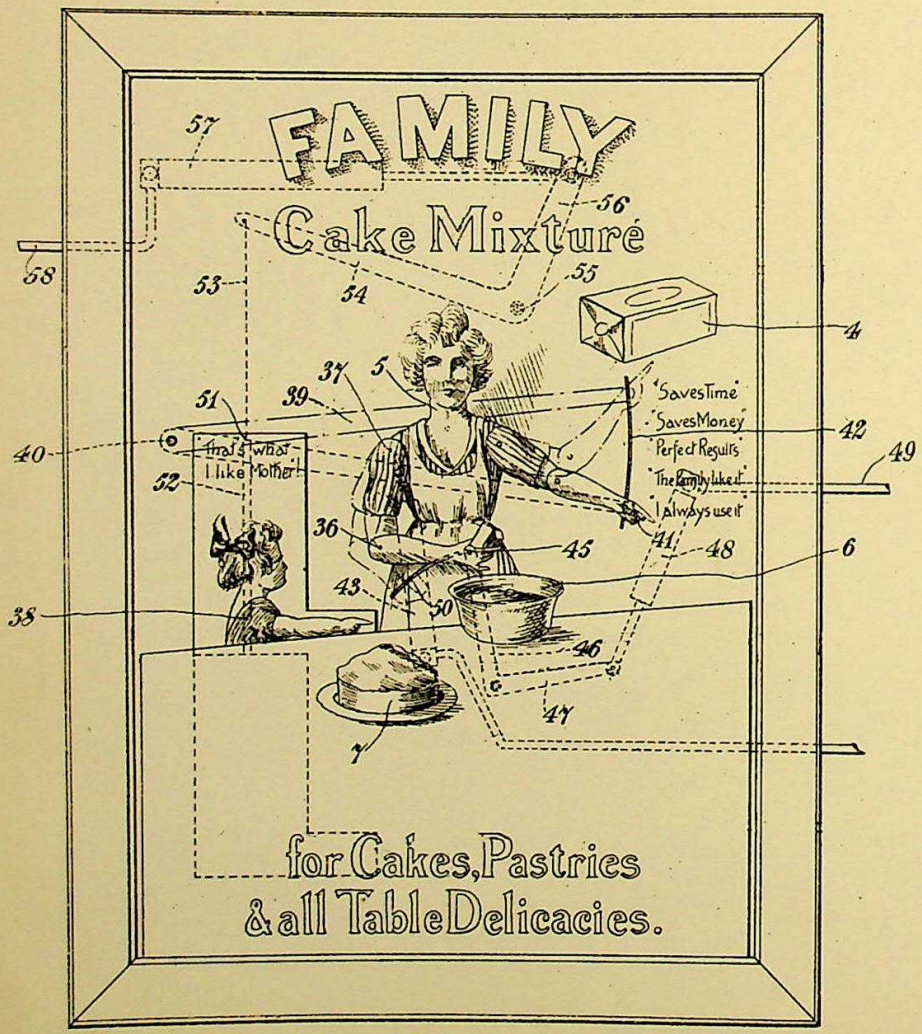
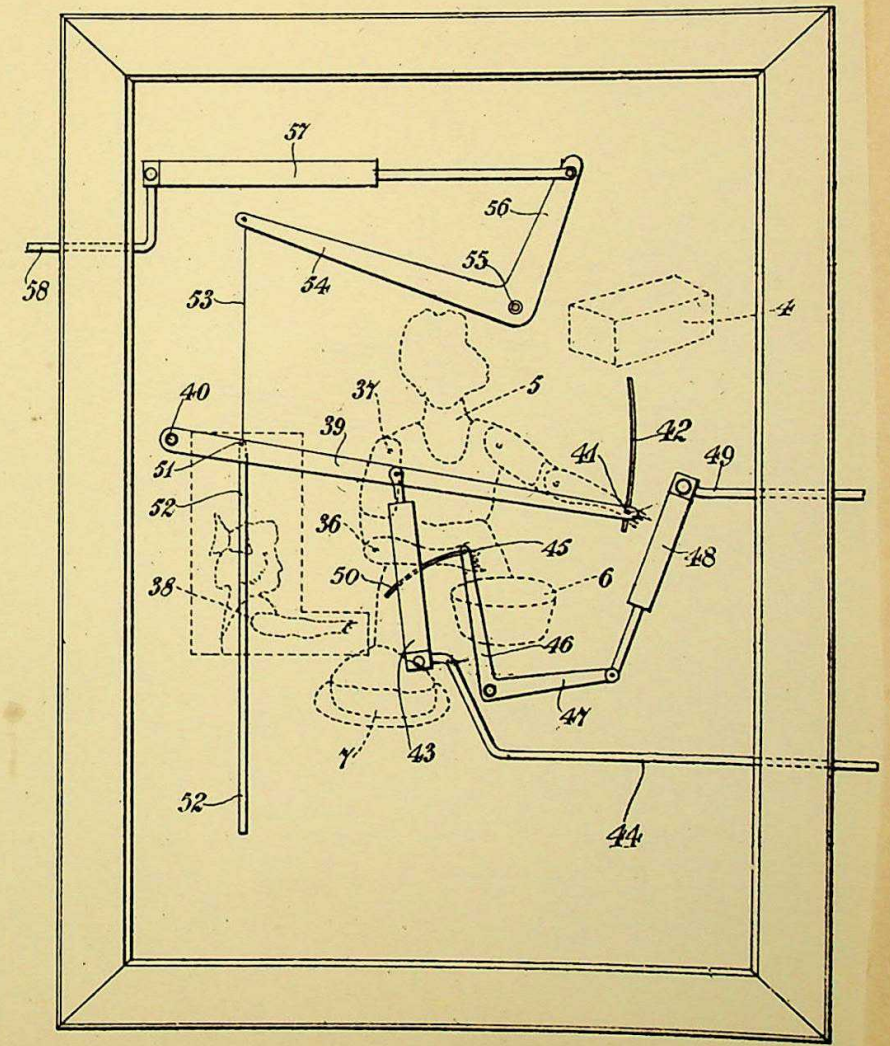


FIG. 4.



208,762 COMPLETE SPECIFICATION

Dated 12-21-23

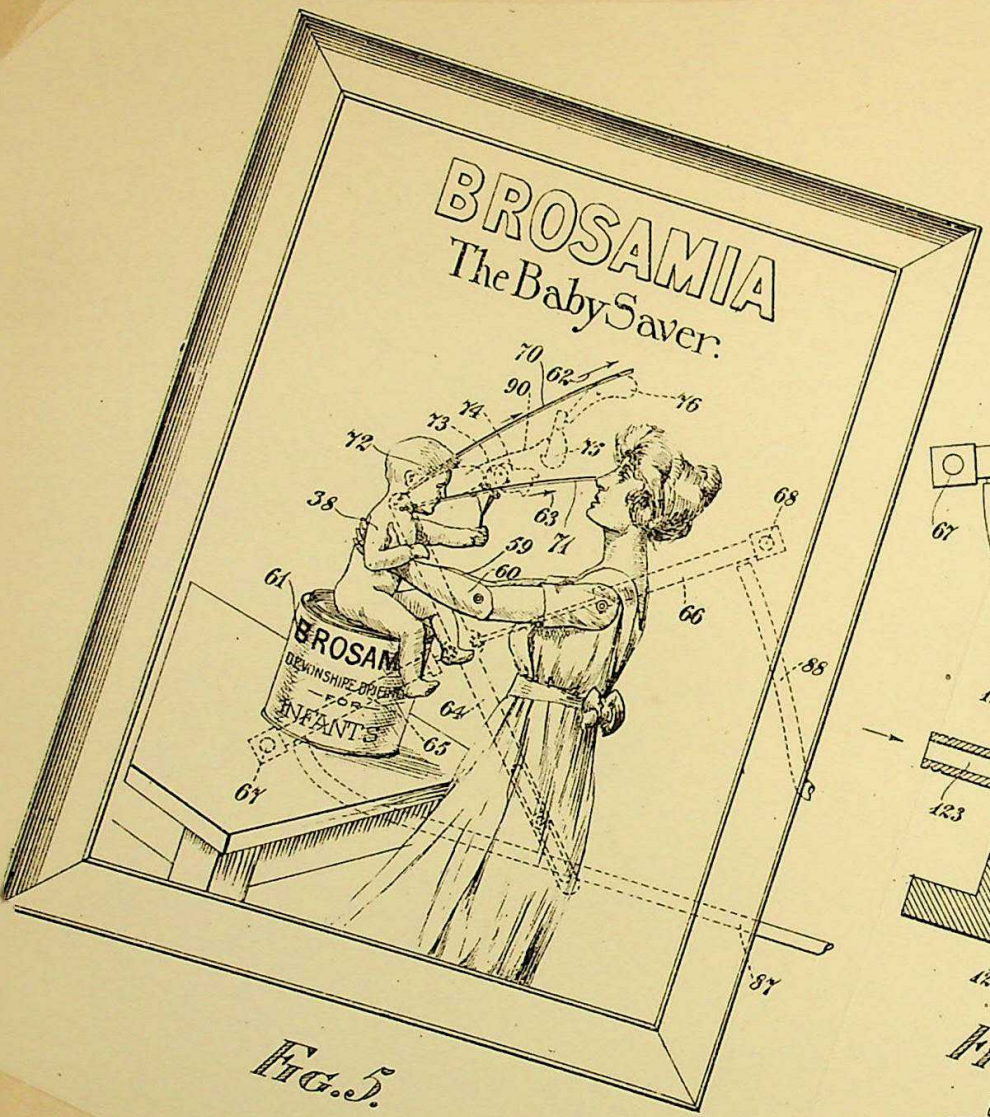


FIG. 5.

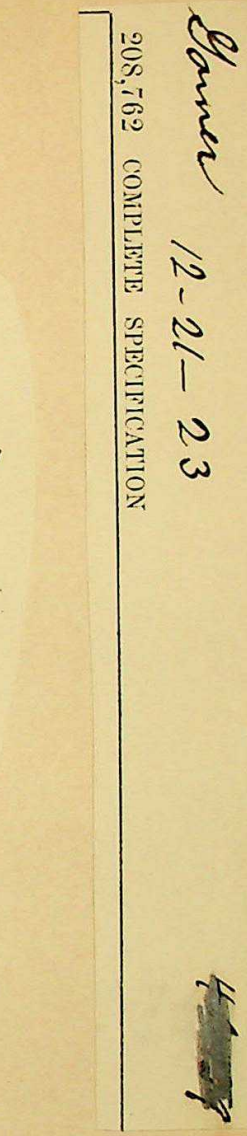


FIG. 6.

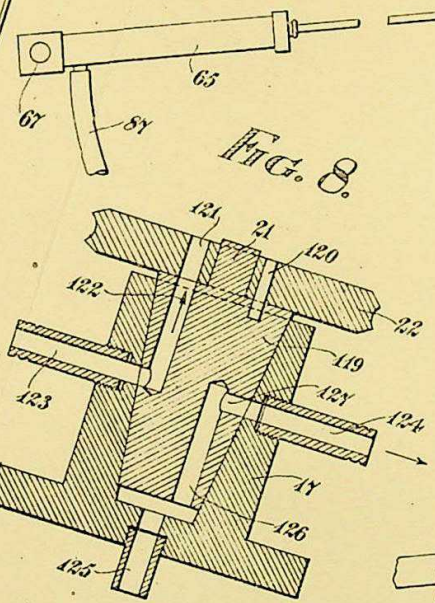


FIG. 8.

FIG. 9.

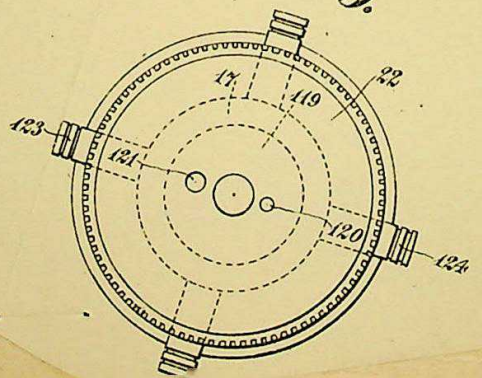


FIG. 7.

PATENT SPECIFICATION

208,762

Application Date: Sept. 21, 1922. No. 25,617/22.

,, ,, Feb. 2, 1923. No. 3192/23.

One Complete Left: July 23, 1923.

Complete Accepted: Dec. 21, 1923.

PROVISIONAL SPECIFICATION.

No. 25,617, A.D. 1922.

Improvements in or relating to Advertising Apparatus.

I, JOHN FORBES GOWER, British subject, of 37, Belsize Park Gardens, N.W. 3, in the County of London, do hereby declare the nature of this invention to be as follows:—

This invention relates to apparatus for use in advertising and has for its object to provide means whereby to effect movement of a showcard or a part thereof or any other desired device at any spot or position in a shop window or the like so as to attract the attention of a passerby or a prospective customer to the article or goods it is desired to advertise.

According to the present invention the apparatus comprises means adapted to effect movement of a showcard or part thereof, or other desired object placed in juxtaposition to the article or goods it is desired to advertise. The apparatus may be of a pneumatic and/or electrical nature or positively operated by Bowden wires or the like, or by other suitable means, and the object to be moved may be a showcard or a part or parts thereof or an animal or a dummy figure or a part thereof or any other object to which movement can be imparted so as to attract the attention of a passerby or a prospective customer or other party. One convenient form of apparatus may comprise an electric motor adapted to actuate an air pump of any suitable kind or dimensions and capacity and a multiple way valve. For purposes of the present description, the several ways of the valve may be connected by flexible tubing or other suitable means with a corresponding number of articles or devices to which it is desired to impart movement, these devices being arranged at any desired positions in the shop window. The object to which movement or several consecutive movements is or are to be imparted may be in the form of a showcard carried by means of a clip which is connected with, secured to or otherwise attached to a piston, bellows or other appliance displaceable in a tubular member under the action of the air supplied from the pump and distributed to the said tubular member through one of the passages of the multiple way valve so as to displace the piston and rod, bellows or other means carrying the showcard. In such arrangement the showcard would be projected upward or in any direction and remain in the upward or other position for a suitable time and would then drop into its lower position. The downward movement, however, of the showcard may be effected positively instead of by gravity or by the creation of a reduced pressure under the piston.

The showcard itself may be provided with an opening or openings each or any of which may be covered by a flap adapted to be opened either by the translational displacement of the rod carrying the showcard or by air pressure supplied from the pump direct to the means which open the aforesaid flap or the air may be arranged to flow through a bye-pass from the tubular member carrying the showcard to the means used to open the flap. Further, simultaneously with the opening of the flap in the showcard or at any suitable time thereafter a figure or other suitable device of any desired nature may be projected through the opening, thus lending an additional attraction to the showcard.

The tubular member may be replaced by the representation of an animal such as a dog in a begging position. The air may be delivered to the said animal so as to actuate the forelegs and cause movement thereof simultaneously with or in-

[Price 1/-]

dependently of a sidewise to and fro movement of the head or an up and down movement of the head of the dog. The air pressure may also be utilised to operate any device for producing sounds. The multiple way valve aforesaid may be rotated at a suitable speed by means of worm and worm gearing from an intermediate shaft driven by the electric motor. On this shaft may be mounted a disc provided with a crank pin which is adapted to actuate the aforesaid air pump, bellows or other suitable means.

The spindle of the multiple way valve may be positively rotated by means of a gear wheel adapted to engage a worm driven from the aforesaid intermediate shaft. The aforesaid devices to which movement is to be imparted may be actuated pneumatically or electrically or both pneumatically and electrically, or positively or indirectly by rods, wires, chains, *etc.*

If so desired the multiple way valve hereinbefore referred to may be replaced by a multiple way switch or an arrangement of cams, or other means to operate wires, rods, *etc.*, and the devices to which it is desired to impart movement may be actuated electrically by means of electro-magnets having electrical connection with the aforesaid multiple way switch.

Dated this 21st day of September, 1922.

J. S. WITHERS & SPOONER,
Chartered Patent Agents,
Staple House, 51 & 52, Chancery Lane, London,
Agents for the Applicant.

PROVISIONAL SPECIFICATION.

No. 3192, A.D. 1923.

Improvements in or relating to Posters, Showcards and other like Advertising Devices.

I, JOHN FORBES GOWER, a British subject, of 37, Belsize Park Gardens, N.W. 3, in the County of London, do hereby declare the nature of this invention to be as follows:—

This invention relates to advertising devices such as posters, showcards and the like.

Posters, showcards and the like (hereinafter referred to as posters), as heretofore provided are generally of the inanimate type, that is to say, that the representations of human, animal or other figures thereon are incapable of movement as well as the representations of inanimate objects thereon.

The object of the present invention is to provide an improved form of poster to which a semblance of life can be imparted by causing the human, animal or other like representations, individually, collectively or as a whole, or any desired part or parts thereof to move in any desired manner.

If so desired movement may also be imparted to a representation of an inanimate object or to representations of inanimate objects or to any desired part or parts thereof either simultaneously with or separately of the movements of the representation or representations of animal or other figures. The movement or movements aforesaid may be effected by mechanical, hydraulic, pneumatic, electric or electro-magnetic means as found most convenient and to allow of such movement the representations or parts thereof, whether of the human, animal or other type, as well as the representations or parts thereof of the inanimate type, are mounted, supported, arranged and if necessary jointed so as to give the desired movements.

A pneumatic type of apparatus suitable for the purpose of the present invention comprises a source of compressed air, a two-way or multiple-way valve, the casing of which is provided with holes the number of which preferably corresponds to the number of parts to which movement is to be transmitted, a stationary, rockable or oscillatory impeller or equivalent, means to rotate the plug of the valve or other suitable device and flexible or rigid connections between the holes in the valve casing and the several stationary, rockable or oscillatory impellers.

The source of compressed air may be a compressed air storage cylinder or if desired an air pump driven by a motor of any convenient type such as an electric motor. When an air pump and motor are used the compressed air is delivered from the air pump to a storage tank or accumulator having any desired number of nozzles which are connected by flexible or rigid connections with the corresponding holes in the valve casing. The air pump may be driven by a cord, belt, chain gearing or other suitable means from the motor and the valve plug may be rotated at the proper speed by suitable gearing from the same shaft which drives the air pump. The motor,

air pump, storage tank, valve, gearing and such other parts as may be considered necessary may be enclosed in a suitable casing which may be adapted to take the place of the tank for the storage of air. The passages in the plug of the valve are preferably L-shaped so that air passes from the air storage tank through one of the legs of the L-shaped passage and then through the other leg of the same L-shaped passage and a hole in the valve casing to the impeller by way of the flexible or rigid connection thereto. The spent air from the impeller exhausts through a flexible connection and a hole in the valve casing to one leg of the other L-shaped passage in the plug of the valve and the said air then exhausts through the other leg of the same L-shaped passage to the atmosphere. The live air is thus admitted to and exhausted from the same side of the impeller piston. The impeller comprises a tube or cylinder in which is a piston capable of being displaced under the action of the live air, the return movement of the piston being effected by a spring or springs or by gravity. The impeller piston is coupled directly or indirectly by a connecting rod to the part which is to be actuated and the stroke of the piston may be adjustable; or two impellers may be placed opposite to one another to act in different directions, the said impellers being each separately fitted with an exhaust valve independent of the rotary valve aforementioned and the valve of the one being operated by the other. If desired rotary turbines actuated by a jet of air impinging on their vanes may be used; or an impeller of the piston type may be geared to a rotatable spindle by means of a sector and cog wheel or the like and weights to uncover its position.

The part or parts which it may be desired to move may be connected by levers or other suitable means to the respective connecting rods of the impeller pistons and the said levers may be counterweighted or balanced.

If desired any or all of the representations may be outlined by means of electric incandescible lamps; or means may be provided to illuminate the poster as a whole so that the movements of the representations may be visible at night. The movement of parts may also be utilised to switch on or off lamps of any suitable kind for purposes of illumination or to mask lights in order to effect a change of colour.

In an actual poster for example a cook may be represented whose arms and/or hands are movable, one arm and hand being, for example, used to point to a packet of some well known foodstuff or the like and the other hand being arranged to support a representation of a packet of the same foodstuff. A suitable representation of a basin or other receptacle may be disposed below the hand holding the packet, or in front or behind as the complete picture might occupy several different planes, for example, a background, then a space, then a figure, then another space, then an article such as a basin. The pointing hand may be arranged to move up to the packet and then downwards therefrom adjacent a tabulated statement of any desired nature. A second figure may be used which figure may be arranged to appear at the proper time and an indication may also appear in the form of an answer or reply to something or other statement. In this arrangement the arms would be moved by rods, levers and link arrangement suitable joints being provided where necessary.

It should be clearly understood that any type of poster may be used and any suitable means may be used to impart animated movements to the figure representation or figure representations or parts thereof and/or to the representation or representations of an inanimate object or inanimate objects on the said poster without departing from the nature of the invention.

Dated this 2nd day of February, 1923.

J. S. WITHERS & SPOONER,
Chartered Patent Agents,
Staple House, 51 & 52, Chancery Lane,
London,
Agents for the Applicant.

COMPLETE SPECIFICATION.

Improvements in or relating to Advertising Apparatus.

I, JOHN FORBES GOWER, British subject, of 37, Belsize Park Gardens, N.W. 3, in the County of London, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to advertising devices, such as posters, showcards and the like and to apparatus for use in poster, showcard and like advertising

means. The invention relates more particularly to advertising devices of the kind in which movement can be imparted to a part or parts of living objects which are represented thereon in the form of plane flat material such as cardboard or the equivalent, the said part or parts being pivotally attached in their proper position relatively to the object. It has heretofore been proposed in connection with advertising mediums such as posters, signs, sandwich-boards and the like to depict a human head portions of which, such as the eyes and the lower jaw, are pivotally mounted and provided each with a lip which, by the action thereon of natural air currents or induced air currents or by variations in temperature which produce hot and cold currents, cause the said pivoted parts to move, the aforesaid natural air currents being commonly found against or adjacent to a wall or other vertical erection and the induced air currents being such as are created by a moving vehicle. It has also been proposed in advertising devices to effect the movement of figures used as advertisements on hoardings in order to enhance their attractiveness and effect, such movement being effected by a common rotating operating member or members which is or are adapted to impart motion to the moving parts of the advertisement by means of cams, bevel gear, crank plates or arms, pulleys or other suitable means. In a modified form of the latter arrangement the common rotating operating member or members is or are replaced by a reciprocating member which is reciprocated by the action of a rotatable cam-shaped member and a toothed sector which engages the reciprocating member so as to effect the reciprocating movements thereof and in the modified arrangement aforesaid the reciprocating member is connected by a slotted link to a bellows which is actuated so as to cause the inflation of the cheeks of a piper shewn on the advertising device.

The object of the present invention is to provide an improved form of poster, showcard and the like to which a semblance of life can be imparted by causing the living representation or representations, individually, collectively, or as a whole, or any desired part or parts thereof to move in any desired manner. The invention also contemplates the provision of improved means whereby to effect movement of any desired part or parts of the representation on a poster or a showcard or a part thereof or any other desired device at any spot or position in a shop window or the like so as to attract the attention of a passer-by or a prospective customer to the article or goods it is desired. The poster, showcard, or the like as a whole may also be movable continuously or intermittently.

According to the present invention movement is imparted to a plane representation or plane representations of a living object or objects or a part or parts thereof by means of compressed air and/or solenoids, the said movements corresponding to the natural movements of the living object or objects represented. If so desired movement may also be imparted to a representation of an inanimate object or to representations of inanimate objects or to any desired part or parts thereof either simultaneously with or separately of the movements of the representation or representations of the living object or living objects. The apparatus comprises means adapted to effect movement of a poster, showcard or part thereof, or any desired object placed in juxtaposition to the article or goods it is desired to advertise. The movement or movements aforesaid may be effected by pneumatic means, and/or solenoids as found most convenient and to allow of such movement the plane representations or parts thereof, whether of the human, animal or other type, as well as the representations or parts thereof of the inanimate type, are mounted, supported, arranged and if necessary jointed so as to give the desired movements.

A pneumatic type of apparatus suitable for the purpose of the present invention comprises a source of compressed air, a two-way or multiple-way valve, the casing of which is provided with holes the number of which preferably corresponds to the number of parts to which movement is to be transmitted, a stationary, rockable or oscillatory impeller or equivalent, means to rotate the plug of the valve or other suitable device and flexible or rigid connections between the holes in the valve casing and the several stationary, rockable or oscillatory impellers.

For the purposes of the present description, the several ways of the valves may be connected by flexible tubing or other suitable means with a corresponding number of articles or devices to which it is desired to impart movement, these devices being arranged at any desired positions in the shop window. The object to which movement or several consecutive movements is or are to be imparted may be in the form of a showcard carried by means of a clip which is connected with, secured to or otherwise attached to a

piston, bellows or other appliance displaceable in a tubular member under the action of the air supplied from the pump and distributed to the said tubular member through one of the passages of the multiple way valve so as to displace the piston and rod, bellows or other means carrying the showcard. In such arrangement the showcard would be projected upward or in any direction and remain in the upward or other position for a suitable time and would then drop into its lower position. The downward movement, however, of the showcard may be effected positively instead of by gravity or by the creation of a reduced pressure under the piston.

The showcard itself may be provided with an opening or openings each or any of which may be covered by a flap adapted to be opened either by the translational displacement of the rod carrying the showcard or by air pressure supplied from the pump direct to the means which open the aforesaid flap or the air may be arranged to flow through a bye-pass from the tubular member carrying the showcard to the means used to open the flap. Further, simultaneously with the opening of the flap in the showcard or at any suitable time thereafter a figure or other suitable device of any desired nature may be projected through the opening, thus lending an additional attraction to the showcard.

The tubular member may be replaced by the representation of an animal such as a dog in a begging position. The air may be delivered to the said animal so as to actuate the forelegs and cause movement thereof simultaneously with or independently of a sidewise to and fro movement of the head or an up and down movement of the head of the dog. The air pressure may also be utilised to operate any device for producing sounds. The multiple way valve aforesaid may be rotated at a suitable speed by means of worm and worm gearing from an intermediate shaft driven by the electric motor. On this shaft may be mounted a disc provided with a crank pin which is adapted to actuate the aforesaid air pump, bellows or other suitable means.

The spindle of the multiple way valve may be positively rotated by means of a gear wheel adapted to engage a worm driven from the aforesaid intermediate shaft. The aforesaid devices to which movement is to be imparted may be actuated pneumatically or electrically or both pneumatically and electrically, positively or indirectly by rods, wires, chains, *etc.*

If so desired the multiple way valve hereinbefore referred to may be replaced by a multiple way switch and the devices to which it is desired to impart movement may be actuated electrically by means of solenoids having electrical connection with the aforesaid multiple way switch.

The source of compressed air may be a compressed air storage cylinder or if desired an air pump driven by a motor of any convenient type such as an electric motor. When an air pump and motor are used the compressed air is delivered from the air pump to a storage tank or accumulator having any desired number of nozzles which are connected by flexible or rigid connections with the corresponding holes in the valve casing. The air pump may be driven by a cord, belt, chain gearing or other suitable means from the motor and the valve plug may be rotated at the proper speed by suitable gearing from the same shaft which drives the air pump. The motor, air pump, storage tank, valve, gearing and such other parts as may be considered necessary may be enclosed in a suitable casing which may be adapted to take the place of the tank for the storage of air. The passages in the plug of the valve are preferably L-shaped so that air passes from the air storage tank through one of the legs of the L-shaped passage and then through the other leg of the same L-shaped passage and a hole in the valve casing to the impeller by way of the flexible or rigid connection thereto. The spent air from the impeller exhausts through a flexible connection and a hole in the valve casing to one leg of the other L-shaped passage in the plug of the valve and the said air then exhausts through the other leg of the same L-shaped passage to the atmosphere. The live air is thus admitted to and exhausted from the same side of the impeller piston. The impeller comprises a tube or cylinder in which is a piston capable of being displaced under the action of the live air, the return movement of the piston being effected by a spring or springs or by gravity. The impeller piston is coupled directly or indirectly by a connecting rod to the part which is to be actuated and the stroke of the piston may be adjustable; or two impellers may be placed opposite to one another to act in different directions, the said impellers being each separately fitted with an exhaust valve independent of the rotary valve aforementioned and the valve of the one being operated by the other. An impeller of the piston type may be geared to a rotatable spindle by means of a sector and cog wheel or the like and weights to uncover its position.

The part or parts which it may be desired to move may be connected by levers or other suitable means to the respective connecting rods of the impeller pistons and the said levers may be counterweighted or balanced.

If desired any or all of the representations may be outlined by means of electric incandescible lamps; or means may be provided to illuminate the poster as a whole so that the movements of the representations may be visible at night.

The movement of parts may also be utilised to switch on or off lamps of any suitable kind for purposes of illumination or to mask lights in order to effect a change of colour.

In order that the invention may be clearly understood and readily carried into effect reference is made to the accompanying drawings which show, for example, posters, showcards and the like in accordance with the present invention.

Figure 1 is an elevation of a poster comprising two parts, a stationary part and a movable part the movable part being shown in dotted lines behind the stationary part. This figure also shows the means for actuating the movable part of the poster and/or the animate or inanimate object of the movable part.

Figure 2 is an elevation of Figure 1 showing the movable part of the poster in the up position.

Figure 3 is an elevation of a poster also in accordance with the invention in which the animate object indicated in Figure 1 is combined with the poster itself, instead of being provided in a movable part of the poster. This figure shows the mechanism dotted behind the poster.

Figure 4 is an elevation of the poster shown in Figure 3 but in this case the mechanism is shown in full and the animate object is shown in dotted lines.

Figures 5, 6 and 7 show elevations of another form of poster showcard and the like also in accordance with the present invention. In Figure 5 the animate objects on the poster are shown in full and the mechanism is shown dotted behind. In Figures 6 and 7 the mechanism is shown in full lines and in two different positions which positions are hereinafter fully described.

Figure 8 is a vertical section of the multiple-way valve hereinafter described, and Figure 9 is a plan thereof.

In Figures 1 and 2 the poster is shown as a two-part poster, 1 being the front and stationary part and 2 the movable part. The front part 1 is provided with any suitable type of frame 3 and has thereon any desired representation such, for example, as that shown, 4 indicating the packet containing the mixture referred to on the poster. The movable part is shown as having an animate object thereon at 5 and inanimate objects 6 and 7, 6 being a representation of a basin and 7 a representation of a cake. The animate object 5 which is a representation of a woman has the left arm pivoted at 8 and at 9, the pivot 9 being secured to the body of the movable part 2 of the poster and the pivot 8 simply securing the forearm and the upper arm together. In the movable part is a slot 10 and the forearm adjacent the wrist is provided with a pivot pin 11 which engages in the slot 10, the said pivot 11 also being secured to a lever arm 12, connected to a piston rod 13 of a pneumatically actuated impeller 14 (hereinafter referred to as an impeller) which is pivoted as at 15 to the support 2. The impeller 14 is connected by a tube 16 to a valve 17 (Figure 1) which is shown as supported on a reservoir 18 having a tubular connection 19 with an air pump 20. It should be clearly understood, however, that the valve 17 need not necessarily be supported on the reservoir 18 as these two parts may be separate and interconnected by tubing or equivalent means. The valve 17 is provided with a plug member 21 on which is mounted a gear wheel 22. 23 is a motor preferably of the electric type which drives, by a belt 24, cord or equivalent, a wheel 25 mounted on a shaft 26, the latter being provided with a crank arm 27 which drives the air pump 20. The wheel 22 is driven by bevel gearing (not shown) from the shaft 26 one of the bevel gear wheels being mounted on a shaft 28 on which is integrally secured a worm 29, the latter engaging with the worm wheel 22. The movable part 2 of the poster is supported on a rod 30 which is displaceable in a tubular casing 31 coupled by means of a tube 32 to the valve 17. The rod 30 carries at its lower end a piston which when the air from the reservoir is admitted into the tubular member 31 causes the rod 30 to rise and with it the movable part 2 of the poster. The valve 17 is provided with any desired number of control outlets therefrom one such outlet being shown at 33 (Figure 1) which is connected by the tube 32 (Figures 1 and 2) to the tubular member 31. If so desired the flaps 34 and 35 of the packet 4 may be hinged to the packet and may be given an outward movement coincident with or distinct from any other movement of the other part or parts of the poster.

The action of the mechanism in this type of poster is as follows:—

The motor 23 is started so as to cause rotation of the valve 17. This valve,

which is hereinafter fully described, admits compressed air through the pipe 16 which is connected with the valve to the impeller 14. The piston thereof is therefore forced outwardly raising the lever 12 which by means of the pin 11 and slot connection 10 causes the left arm of the woman to ascend until it points to the packet 4. Thereafter the air is cut off from the impeller 14 and the woman's arm falls, by gravity, to a position adjacent the words " saves time ". A slight stop is here effected by any suitable means and the arm then continues to move downwardly stopping at each of the phrases indicated on the right hand side of the movable part of the poster. Any suitable means may be provided to effect such stoppage which is only of very short duration. If desired, however, the downward movement of the hand and arm including the upper part thereof or any desired part of the arm as a whole, may be continuous instead of intermittent. The pin 11 subsequently descends until it stops at the bottom of the slot 10. The valve 17 in its rotation then opens up communication with the pipe 16 and the arm is caused to rise again and point to the packet 4. On cutting off the compressed air from the impeller 14 the arm again begins to descend as hereinbefore explained either with continuous movement or intermittent movement. When the pin 11 descends to the bottom of the slot 10 the cycle begins anew.

In Figures 3 and 4, the poster is shown as a single unit, the movable part and the stationary part in this case being combined to form one poster. In this type of poster 4 is the packet, 6 is the basin, 7 the cake and 5 the woman. The woman's right arm is pivoted at 36 and at 37 so that the forearm may be given a movement towards the right of the poster as well as a tilting movement on the pivot 36. The packet 4 which is shown in the woman's hand may be given a tilting movement if so desired. 38 represents a child. The mechanism by which the movements of the various parts are effected is shown in dotted lines in Figure 3 and in full lines in Figure 4. This mechanism comprises a lever arm 39 pivotally secured as at 40 to the body of the poster, the said lever 39 and the woman's left hand being connected by a pin 41 with a slot 42 and the said lever 39 is actuated by a rockable impeller 43 having a tubular connection 44 with the reservoir 18. The woman's hand is pivotally connected as at 45 to one arm 46 of a bell crank lever, the other arm 47 of which is connected to a rockable impeller 48 having a connection 49 with the valve 17. The pin 45 to which the woman's right hand is connected is adapted to move in a slot 50 provided in the back of the poster. The child 38 is connected to a pin 51 which is guided in a slot 52 formed or provided in the back of the poster. The pin 51 is connected by a rigid connection 53 to one arm of a bell crank lever 54 which is pivoted at 55 to the back of the poster, the other arm 56 of the said bell crank lever being connected to an impeller 57 having a tubular connection 58 with the valve 17.

The action of the various parts in this type of poster is as follows:—

On the admission of air to the impeller 43 the lever arm 39 is caused to rise and consequently also the woman's left hand. The upward movement of the hand continues until the pivot pin 41 reaches the top of the slot 42 at which moment the hand is pointing to the packet 4 shown in the top right hand corner of the poster. By reason of rotation of the plug valve 17 which controls the movements of the woman's arms, the compressed air is cut off and the woman's hand begins to descend and continues to descend until it reaches the bottom of the slot 42. At this moment air is admitted through the tubular connection 49 to the impeller 48 so as to actuate the arms 46 and 47, of the bell crank lever. This causes the pin 45 to move in the slot 50 and since the woman's right hand is connected with the pin 45 the hand moves towards the basin 6 until the packet is almost over the basin at which moment if so desired a tilting movement may be given to the packet in the woman's hand. After the contents have been dropped into the basin or at other desired time, the right hand of the woman is moved back into the opposite position. At this moment the impeller 57 is actuated by the admission thereto of compressed air through the tube 58. This actuates the arms 54 and 56 of the bell crank lever and consequently the rigid connection 53 with the child 38. The child 38 therefore moves up and at the same time the expression: " That's what I like mother " appears on the left hand side of the poster, this expression being normally covered by a suitable disc or flap when the child is invisible.

Figures 5, 6 and 7 show a further arrangement of poster also in accordance with the present invention. In this arrangement the child 38 is held in the woman's arms 59 and 60. As shown the child 38 is supposed to be seated or supported on a tin 61 of baby food and the child can, when the mechanism is set in

operation, be caused to move in two directions indicated by the arrows 62 and 63 whilst being held in the woman's arms. The movement of the child is effected by the mechanism shown in dotted lines in Figure 5, in full lines in Figure 6 in one position and in full lines in another position in Figure 7. The mechanism comprises a lever arm 64 which is connected to two rockable impellers 65, 66, the impeller 65 being pivotally secured as at 67 to the back of the poster and the impeller 66 being pivotally secured as at 68 to the back of the poster. The end of the lever 64 is connected by a pivot pin 69 to the child 38, the said pivot pin 69 being displaceable in any desired sequence in the slots 70, 71. 72, 73, 74, 75 and 76 are cams of the form shown. The cam 73 is provided with a step-portion 77 and the cam 74 is provided with two step-portions 78, 79. The cam 75 is provided with a step-portion 80 and is adapted to actuate the cam 76 at the proper time. The cams 72 to 76 are pivotally supported on the back of the poster as at 81, 82, 83 and 84 respectively. 85 is a stop which limits the movement of the cam at 75 and 86 is a stop which limits the movement of the cam 73. The impellers 65, 66 are connected by tubular members preferably of a flexible nature 87, 88 to the reservoir 18 and the movement of the mechanism is controlled during the rotation of the valve 17. Assume the position of the mechanism shown in Figure 5 to be the starting position, although it is to be clearly understood that any other position of the three positions of the mechanism may be considered as the starting position. When air is admitted to the impeller 65 the lever 64 is actuated so that the pin 69 moves under the cam 72 and along the arcuate slot 71. In the position shown in Figure 5 the step-portion 77 of the cam 73 is clear of the slot 71 and consequently the pin 69 in its movement slides under the cam 73 and raises the cam 74 into a position such that the step portion 79 thereof engages with a step portion 80 on the cam 75. The pin 69 continues the travel to the end of the slot 71 carrying the child with it. When the pin reaches the end of the slot the admission of compressed air to the impeller 65 ceases and the impeller 66 then comes into action and returns the pin 69, and consequently the child, to the position shown in Figure 5. On reaching the latter position the admission of air into 66 ceases and compressed air is admitted to the impeller 65. By reason of the lift of the cam 74 during the preceding movement of the pin 69 the cam 73 drops to such a position that the step portion 77 thereof blocks the slot 71. As the lever 64 starts its second movement the pin 69 engages the step portion 77 of the cam 73 and causes the said cam to abut against the stop 86 on the cam 74. The continued movement of the pin 69 towards the upper end of the slot 71 actuates the cam 73 and causes the latter to raise the cam 74 into such a position that the step portion 78 thereon engages with the step part 80 on the cam 75. As the pin 69 returns to its lower position due to the action of the impeller 66 the said pin 69 simply slides past the cam 73. When, however, the cam 74 moves to the position wherein the step portion 78 thereof engages the step 80 of the cam 75 the part 89 thereof strikes against the upper end of a plate spring 90 which is secured to the cam 72. This brings the cam 72 into a position such that the pin 69 on reaching its lower position and on being subsequently actuated by the impeller 65 is compelled to move up the slot 70 in the direction of the arrow 62. When the pin 69 comes into contact with the cam 76 the other end thereof is depressed so that the cam moves on its pivot 84 and the lower end 91 of the said cam strikes the upper end 92 of the cam 75 thereby releasing the cam 74 which drops to the position shown in Figure 5. The pin 69 continues its downward movement and until it reaches the apex formed by the junction of the two slots as the cam 72 has now been raised to the position shown in Figure 5 the subsequent movement of the pin 69 takes place along the slot 71. There is thus one movement along the slot 70 followed by the two movements along the slot 71 or depending upon which is the starting position, there may be one movement of the pin 69 along the slot 71 followed by one movement along the slot 70 and a subsequent movement of the pin 69 along the slot 71. In any case the cycle repeats itself, the movement of the pin 69 being effected in the manner hereinbefore described.

In Figure 7 the mechanism is shown with the step portion 78 of the cam 74 engaging the step portion 80 of the cam 75. Obviously, the movement of the child may be a one to one movement instead of a one to two movement and instead of the two impellers 65 and 66 being arranged in the manner shown in Figures 5, 6 and 7, the lever 64 may be in two parts hinged together, one part, namely the lower part, carrying an impeller which is adapted to act in the outer hinged part of the lever, the movement of the lever as a whole being